



Lynchburg District Update

Virginia Statewide Bicycle and Pedestrian Advisory Committee
Spring Meeting
May 16th, 2017

David Cook

Transportation Planner, VDOT Lynchburg District

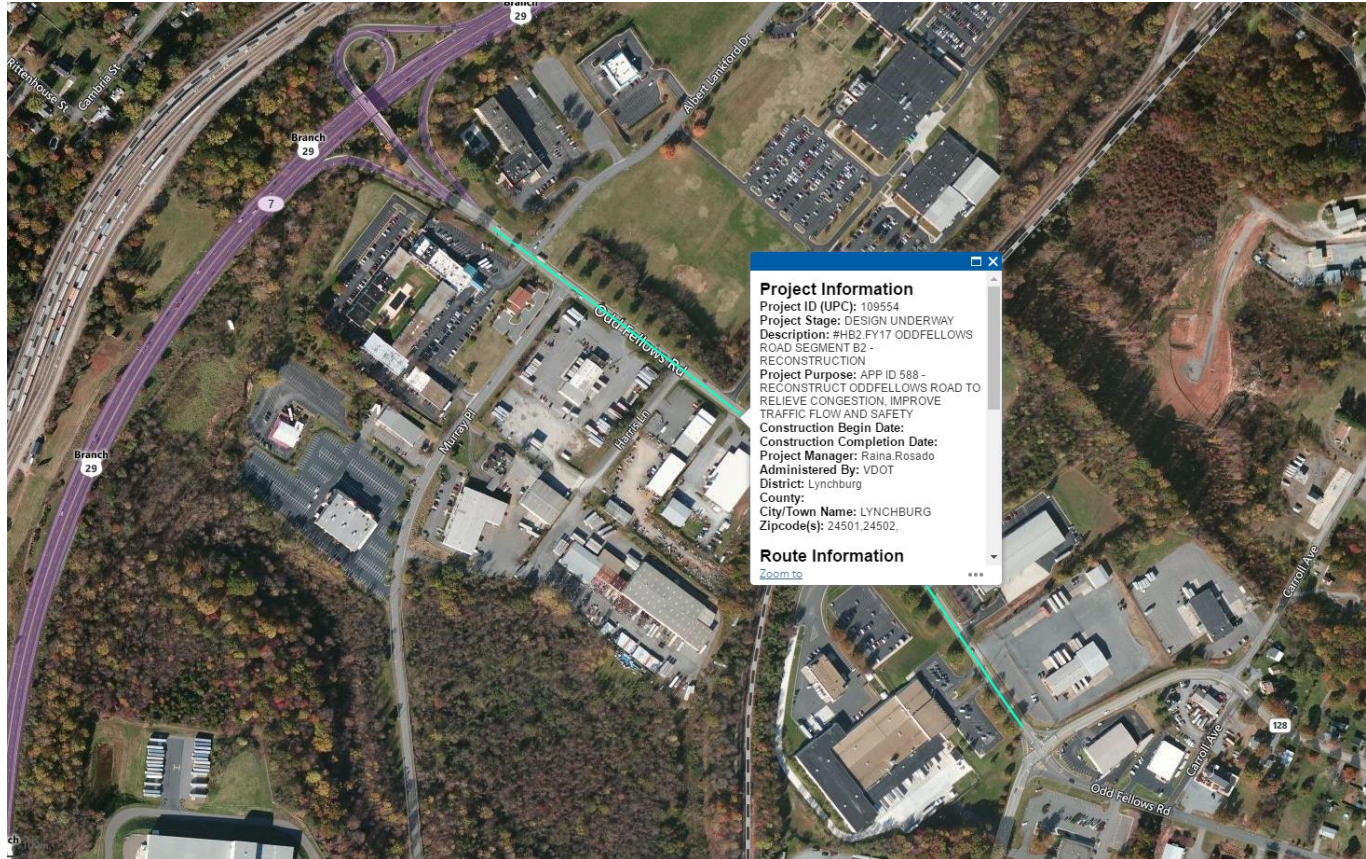


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Active 2017 Lynchburg District Bike/Ped Projects

Odd Fellows Road Segment B2 Reconstruction



- \$17.7 million project (Lynchburg City)
- Estimated completion: January 2019
- Project will include construction of new 10' shared use path to provide greater connectivity and pedestrian safety for students living in nearby Liberty University student dorms

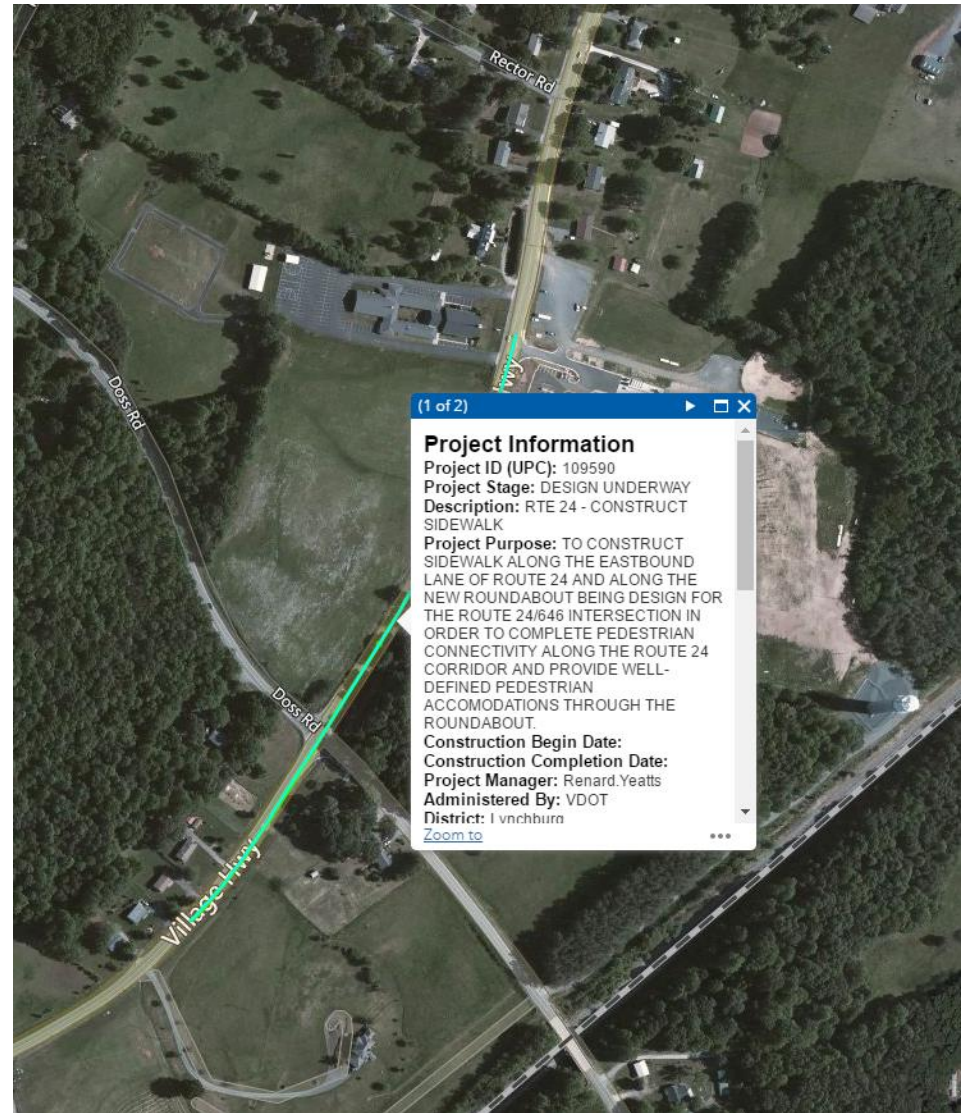
Route 60 – Construct new Sidewalk

- \$772,000 project (Town of Amherst)
- Estimated completion: March 2017
- Project along eastbound lane RTE 60 in the Town of Amherst to improve pedestrian connectivity along the corridor and meet ADA standards



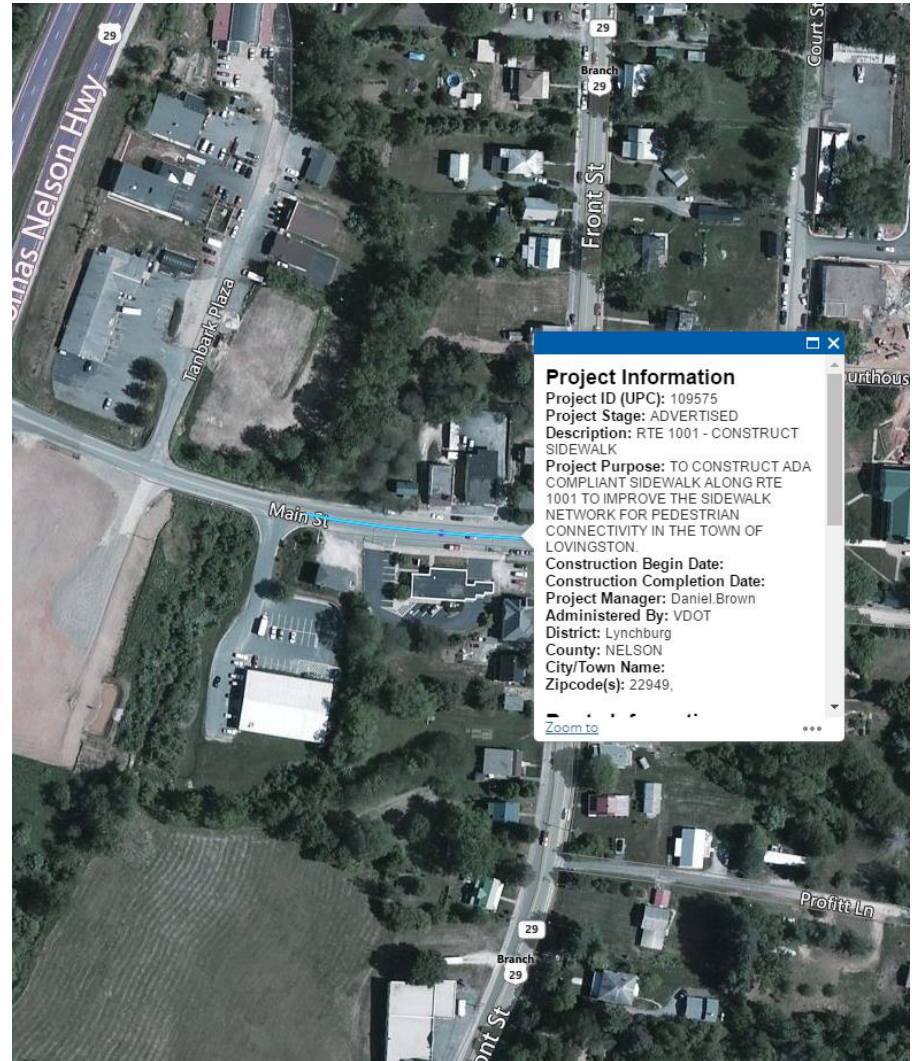
Route 24 – Construct Sidewalk

- \$790,000 project (Campbell County)
- Estimated completion: July 2018
- Construction of new sidewalk eastbound lane of RTE 24 and along new roundabout near RTE 460 to improve pedestrian connectivity along the corridor.



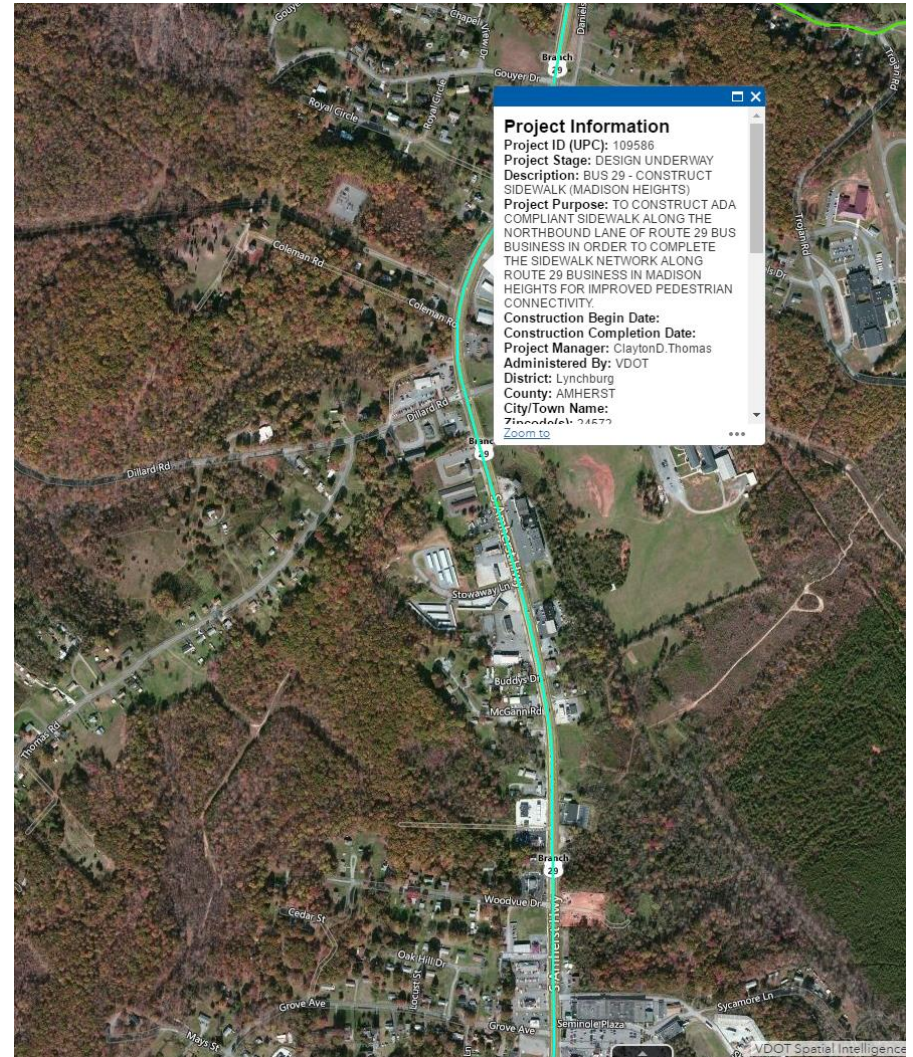
Route 1001 – Construct Sidewalk

- \$330,000 Project (Town of Lovington)
- Estimated completion: November 2017
- Construction of new sidewalk to enhance connectivity and ped. safety in Lovington Town



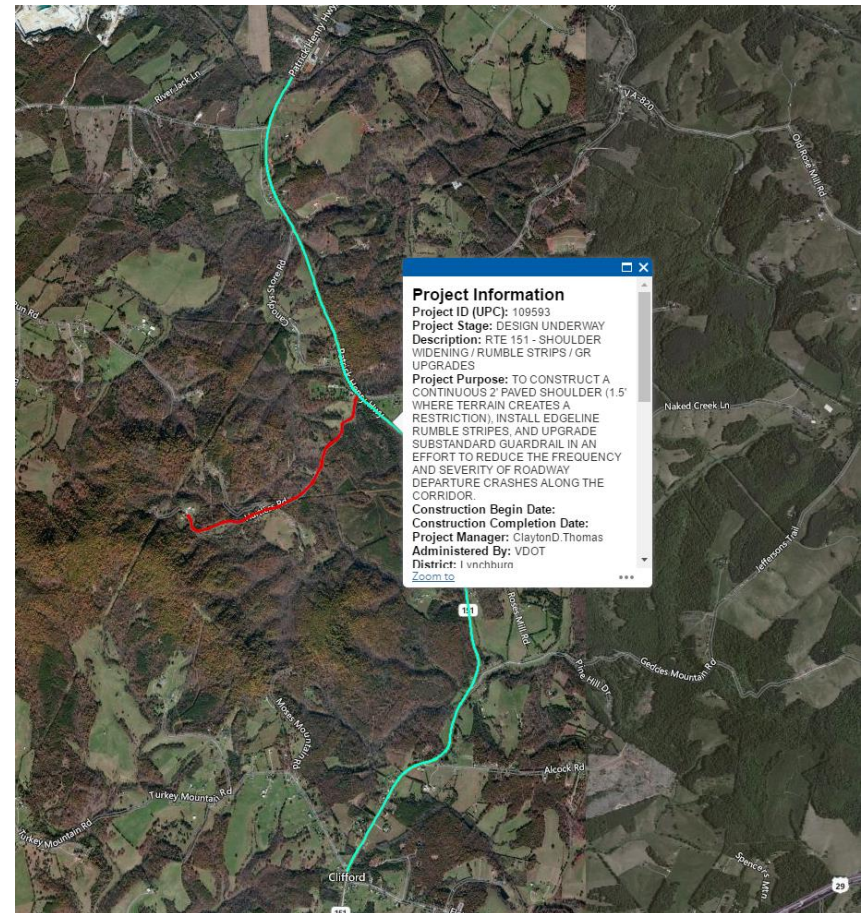
BUS 29 - Construct Sidewalk (Madison Heights)

- **\$1 million project (Amherst County/Madison Heights)**
- **Estimated completion: September 2020**
- **Construction of 1.4 miles of new sidewalk in Madison Heights along the RTE 29 BUS corridor to enhance pedestrian safety and connectivity**



RTE 151 – Shoulder Widening and Rumble Strips

- \$2.4 million project (Amherst County)
- Estimated completion: March 2018
- Project includes continuous 2' paved shoulder for 4.6 miles on both sides of RTE 151



Other Active Projects with Minor Bike/Ped Spot Improvements

UPC	Jurisdiction	Description	Street Name	Project Cost
109703	Charlotte County	#HB2.FY17 RTE 360 - TURN LANES & ENTR AT HEARTLAND BUS PARK	KINGS HIGHWAY	\$864,197
109529	Buckingham County	#HB2.FY17 RTE 15 - LEFT & RIGHT TURN LANES AT RTE 636	SOUTH JAMES MADISON HIGHWAY	\$3,009,665
109530	Halifax County	#HB2.FY17 RTE 601 - IMPROVE ROADWAY ALIGNMENT	BUCKSHOAL ROAD	\$3,426,048
109704	Buckingham County	#HB2.FY17 RTE 60 - LEFT & RIGHT TURN LANES AT RTE 56	WEST JAMES ANDERSON HIGHWAY	\$3,403,582
109550	Amherst County	#HB2.FY17 RTE 682 - RECONSTRUCTION	WOODY'S LAKE ROAD	\$8,447,009
109528	Nelson County	#HB2.FY17 RTE 151 - RIGHT TURN LANE AT RTE 664	ROCKFISH VALLEY HIGHWAY	\$1,310,264
109531	Prince Edward County	#HB2.FY17 RTE 460 - INTERSECTION RECONSTRUCTION AT RTE 307	PRINCE EDWARD HIGHWAY	\$3,132,081
109534	Nelson County	#HB2.FY17 RTE 29 - RIGHT TURN LANES AT RTE 655	THOMAS NELSON HIGHWAY	\$1,470,221
109535	Prince Edward County	#HB2.FY17 RTE 15 - LEFT & RIGHT TURN LANES AT RTE 655	FARMVILLE ROAD	\$5,575,993
109537	Prince Edward County	#HB2.FY17 RTE 15 - CONSTRUCT ROUNDABOUT AT RTE 692	FARMVILLE ROAD	\$3,152,524
109546	Appomattox County	#HB2.FY17 RTE 460 - LEFT & RIGHT TURN LANES AT RTE 609	RICHMOND HIGHWAY	\$1,301,795
108103	Prince Edward County	RTE 630 - SPOT SHOULDER WIDENING		\$415,000
109538	Altavista	#HB2.FY17 UR 1466 - RIGHT TURN LANE AT BUS 29 (LYNCHMILL RD)	LYNCH MILL ROAD	\$2,617,128
109555	Lynchburg	#HB2.FY17 BUS 460 - RECONSTRUCT INTERSECTION AT RTE 622	TIMBERLAKE ROAD	\$3,679,262

Spotlight Project: Town of Amherst Route 29 Business (Main Street) Road Diet

Project Summary

- Received an official request from the Amherst Town Manager to examine the possibility of installing bike lane facilities along the Business 29 Corridor in the Town of Amherst
- VDOT analyzed turning movements, AADT counts, and roadway pavement widths along the corridor and recommended a road diet along the entire corridor north of the roundabout and in some sections south
- Plan: Remove two-way left turn lane (will go from 3-lane to 2-lane facility), retain on-street parking, and stripe 5' - 6' (varies through corridor) bike lanes on both sides of the roadway
- Amherst Town Council and the public enthusiastic about the project during the public meeting and the final roadway striping plan was approved by Town Council
- Anticipated completion: June



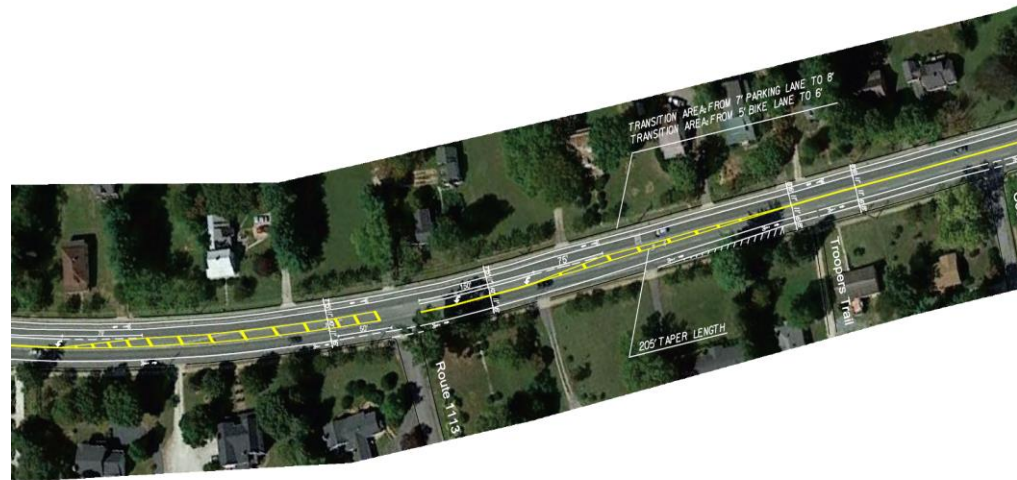
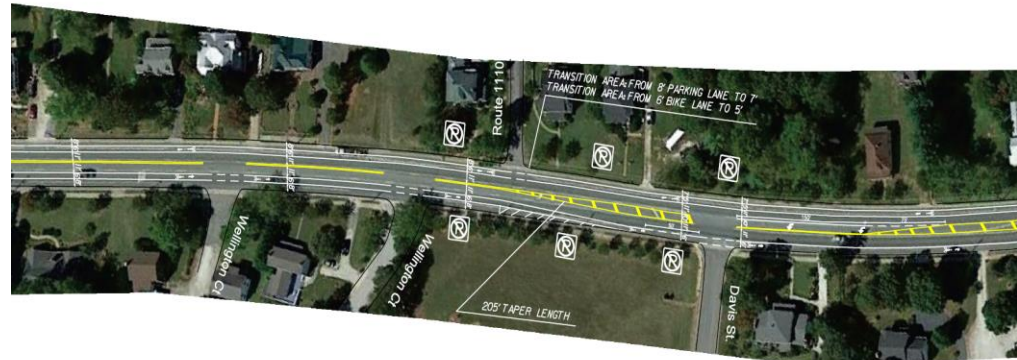
RTE 29 Bus North of the Roundabout Existing Conditions

- 1.2 miles in length
- 3-lane facility with 2-way center left turn lane
- Pavement width varies 46' – 47' + 4' total curb and gutter
- 7.5' Parking along both ends of corridor
- Predominately residential land use and one elementary school (Amherst Elementary)
- Speed Limit: 35 MPH
- AADT: 2,959



The Plan: RTE 29 Bus North of the Roundabout

- VDOT Traffic Engineering developed a roadway pavement marking plan for the 1.2 mile corridor north of the roundabout
- Total removal of 2-way left turn lane
- 5' bike lanes in 46' section and 6' in 47' section from roundabout up to first ramp at the US 29 interchange (2.2 total lane miles of new bike lane facilities). 11' – 12' travel lanes
- Will be implemented during June paving schedule



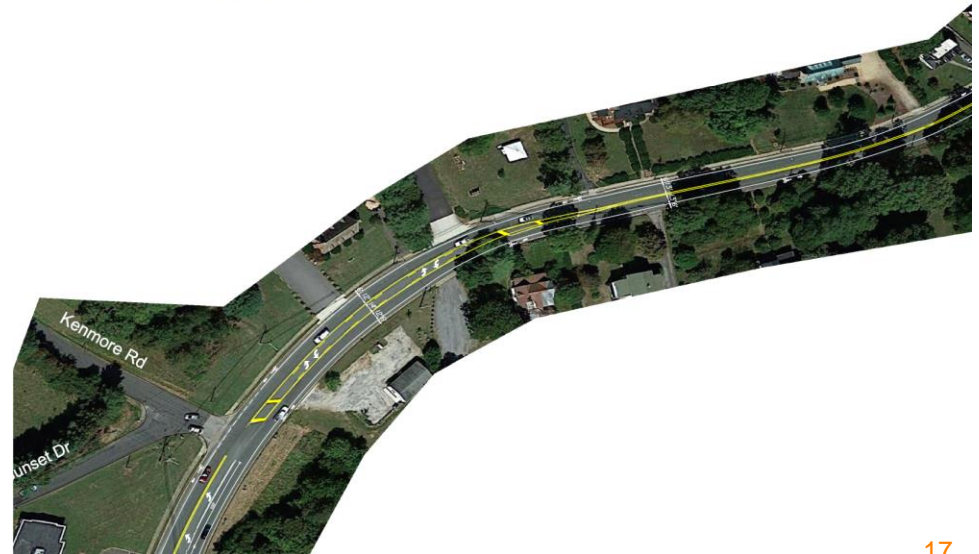
RTE 29 Bus South of the Roundabout Existing Conditions

- 0.8 miles in length
- Predominately 2-lane facility (3-lane in southernmost section)
- On-street parking only in the CBD up to Wells Fargo
- Pavement width: 38' from roundabout to 0.3 miles south of 2nd Street (0.4 total miles). 50' for remaining 0.4 miles of corridor (with two-way left turn lane)
- Corridor Passes through CBD and into a commercial/residential mix area
- Speed Limit: 25 MPH
- AADT: 4,972



The Plan: RTE 29 Bus South of the Roundabout

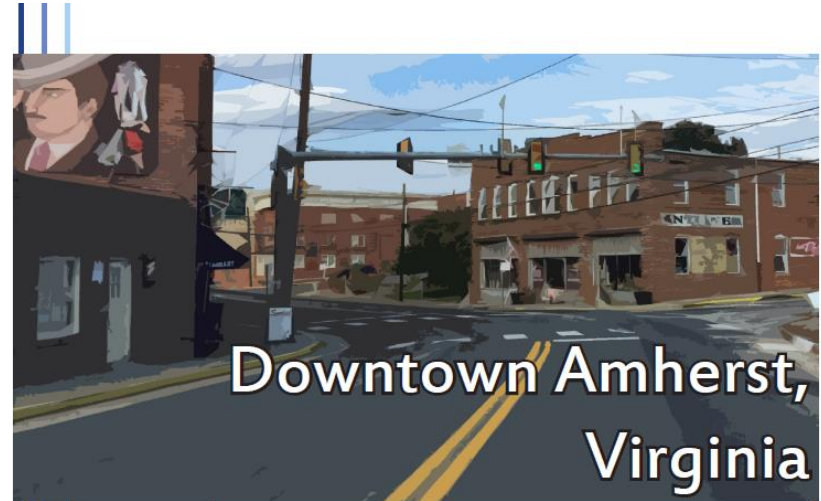
- Town adopted EPR Town of Amherst CBD Bike/Ped Study recommendation for shared markings (Sharrows) in the CBD from the roundabout to Lee Street (0.4 miles of Sharrows)
- VDOT striping plan south of Lee Street includes 6' bike lane on both sides and retention of 2-way left turn lane in southern portion with bike lanes (0.8 lane miles of bike lanes)
- Implemented in June



Planning Studies

Downtown Amherst Pedestrian and Walkability Study

- **EPR/Renaissance Planning Study with support from the Central Virginia MPO, Region 2000, Town of Amherst, and VDOT Planning and Traffic Engineering**
- **Study done in 2016**
- **Involved two public meetings**
- **Goal: Make downtown Amherst a more walkable and safe environment for all mode users and to assist the revitalization of downtown**
- **Identify short, mid, and long-term improvements to the downtown pedestrian environment**



Pedestrian Safety and Walkability Study

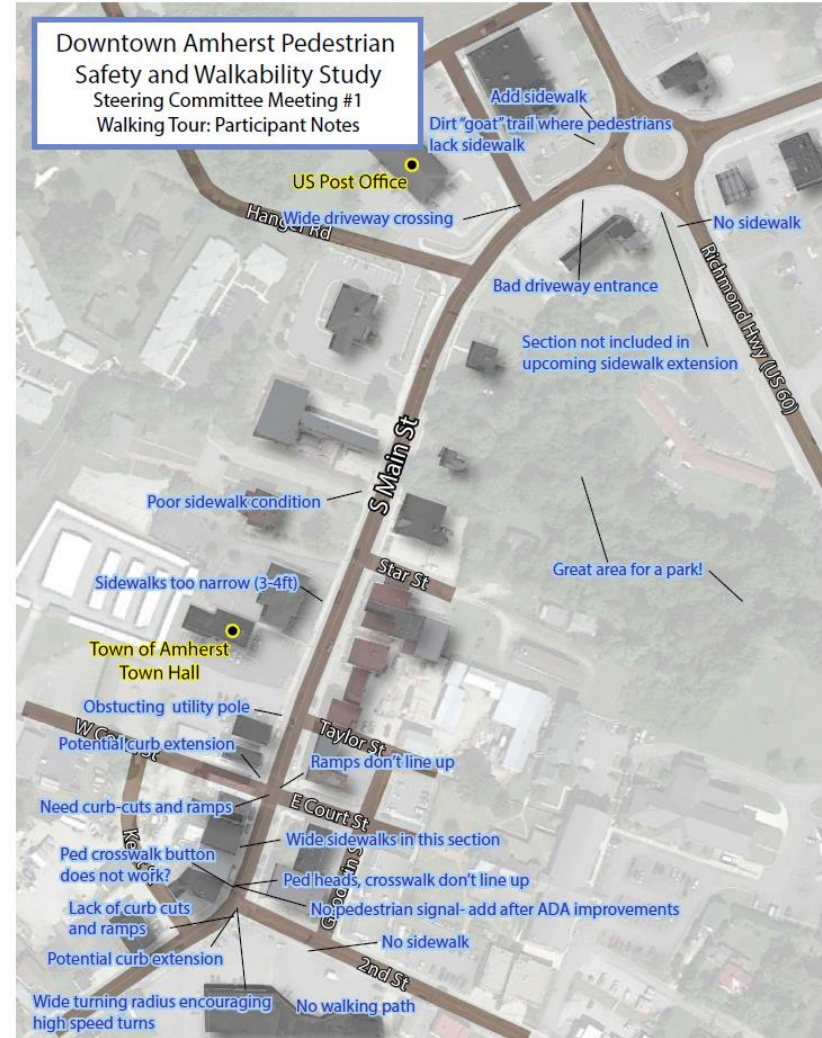
Study Partners:
 Region 2000 Local Government Council
 Town of Amherst
 Central Virginia MPO
 Virginia Department of Transportation
 EPR PC
 Renaissance Planning

December 2016

Steering Committee Comments and Concerns

- Missing sidewalk ramps
- Missing pedestrian signal heads
- Limited crosswalk visibility
- Sidewalk gaps and several desire lines visible
- No formalized driveway conditions and sidewalks at roundabout
- Low Awareness of pedestrians and bikes
- Numerous sidewalk obstructions (particularly utility poles and trash cans)

Figure 2: Main St Walking Tour Notes



The notes highlighted in blue are a compilation of observations recorded by walking tour participants.

Public Meeting Comments and Concerns

- Similar observations as steering committee
- Ensure that proposed sidewalk extensions do not interfere with loading zones
- Moving utility poles to less-obstructive locations
- Desire for town to explore full range of funding sources (Smart Scale, HSIP, Revenue Sharing, Public-Private Partnerships)



Downtown Amherst Recommended Improvements

- Phase 1: Pedestrian signalization improvements to the intersection of 2nd St and Main St (completed during study phase) and sidewalk ramp improvements along Main St (currently underway)
- Phase 2: Pavement marking improvements from the traffic circle at RTE 60 to just beyond 2nd St including sharrows, formalized parking spaces, narrower 12' lanes, and loading zones (underway in June)
- Phase 3: Curb extensions, roundabout crossing improvements, and streetscaping (\$1.7 million in recommendations. Dependent on funding)



Danville River District Bike/Ped Study

- **Consultant study with planning partners from the MPO, locality, and VDOT**
- **Purpose: to assess existing bike/ped conditions of the Danville River District and provide a broad series of recommendations to address bike/ped needs in order to direct future efforts to enhance bike/ped travel in the area**
- **Two public meetings and numerous stakeholder meetings**
- **Draft report out. City council review and adoption action on May 16th**

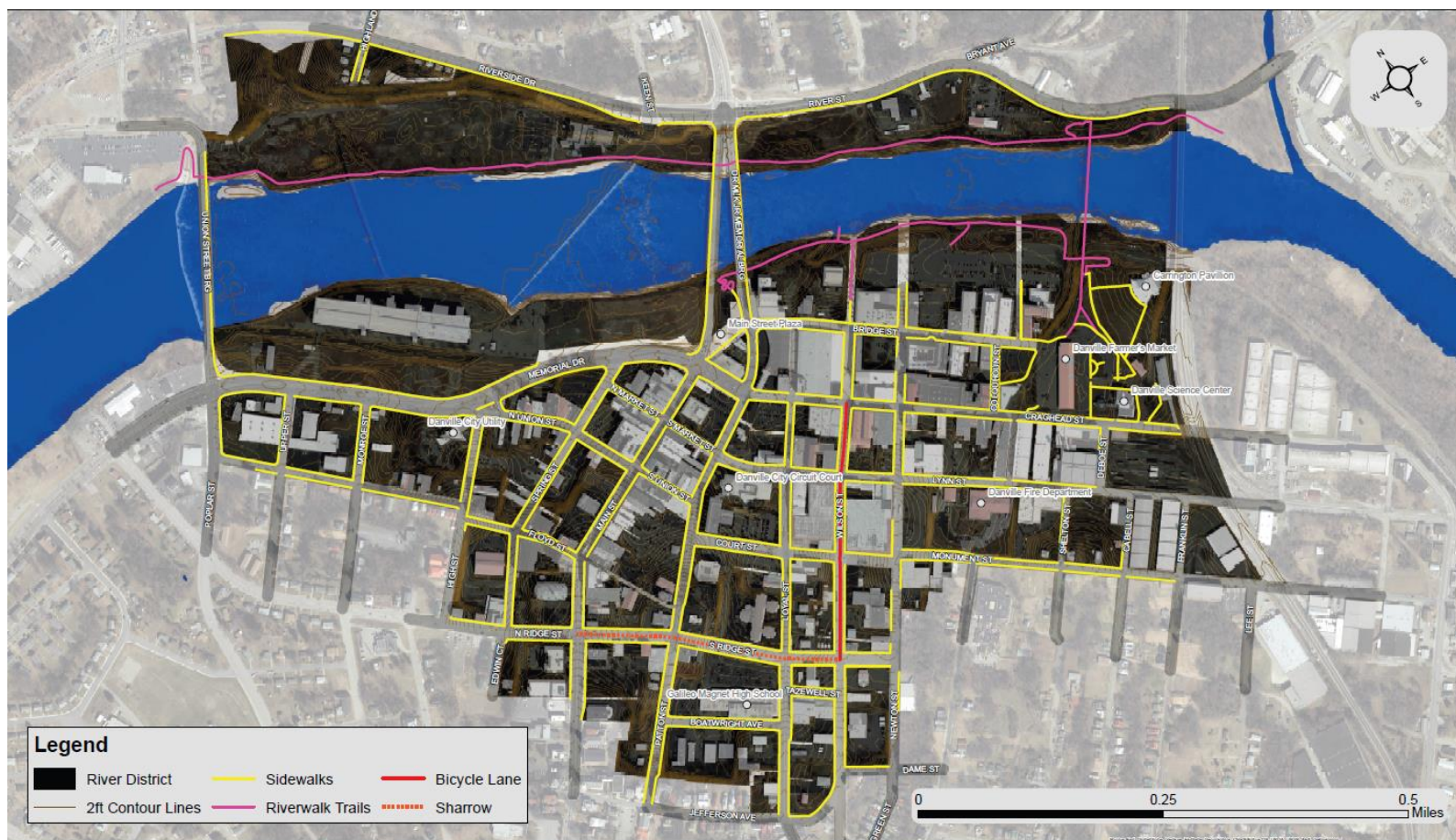


River District Bicycle and Pedestrian Study



DRAFT REPORT May 2017

Existing Facilities Map



Meeting One: Feedback and Results

Major Topics of Discussion

Some of the major topics of discussion during the first set of public meetings included:

Bicycle and Pedestrian Culture

Encourage more residents to bike and walk. Explore ways to make drivers more aware of and responsive to bicyclists and pedestrians.

Bicycle Infrastructure

Provide more bicycle racks, bicycle maintenance stations, and bicycle accommodations on buses.

Riverwalk Trails

Continue to support the maintenance and enhancement of the Riverwalk Trails, as well as promoting the trails to reach a wider audience.

Road Diets

Consider replacing lanes on under-utilized four-lane roads with bicycle accommodations.

Preparing for Change

Expect significant increases of both vehicle and bicycle/pedestrian traffic in the River District as the area continues to redevelop.

Destination Areas

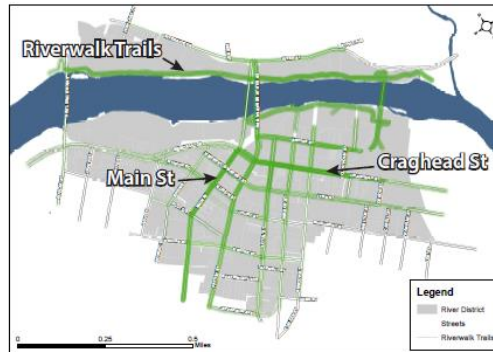
The graphic below displays the results of a map exercise that asked participants to identify areas in the River District to which they desire to bike or walk.

Responses are shown with green circles. A darker shade of green indicates more responses in that area.



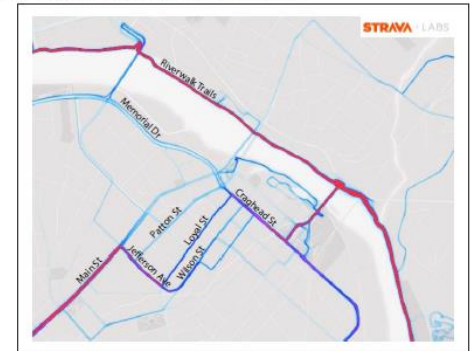
Active Bicycle and Pedestrian Corridors

In this exercise, participants were asked to identify streets or trails *that they currently use* when walking and biking in the River District. Responses are indicated by green lines. The shade of green corresponds with the number of responses, with those streets that received the largest number of responses highlighted in the darkest shade of green.



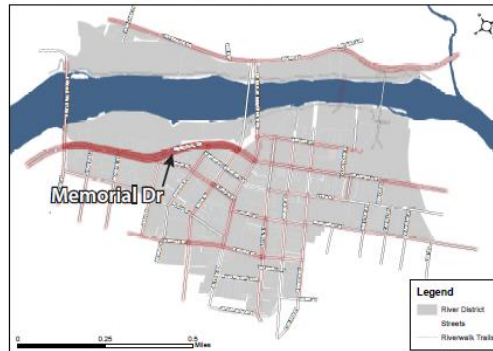
Strava Heat Map

Strava is a mobile app and website that helps track and record the exercise activities of bikers and runners. The Strava website offers a "heat map" feature that aggregates all of the route information shared by its users over the course of a year. The information collected for the River District is shown below and has been used to supplement the user information collected at the first meeting. The most heavily used corridors are shown in dark blue and red.



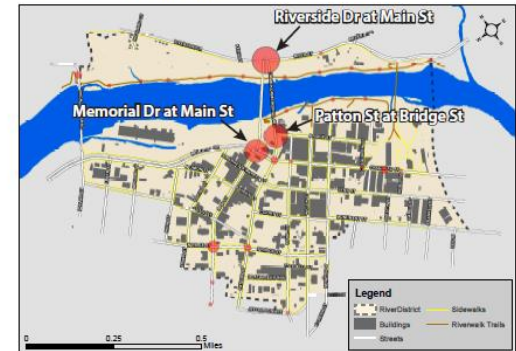
Desired Bicycle and Pedestrian Corridors

In this exercise, participants were asked to identify streets or trails *that they would like to use* when walking and biking if conditions were improved. Responses are indicated by red lines. The shade of red corresponds with the number of responses, with those streets that received the largest number of responses highlighted in the darkest shade of red.



Safety Concerns

In this exercise, participants were asked to identify intersections or street crossings that are difficult or unsafe for bicyclists and pedestrians. Responses are indicated by red dots. The size of the dot corresponds with the number of responses, with those locations that received the largest number of responses marked with the largest dots.



Recommended Bike Routes and Facilities

Recommended Bicycle Routes

Bicycle routes encourage and facilitate bicycle travel by identifying safe and continuous routes that bicyclists can use to travel between destinations in a community.

The map below provides a recommended network of bicycle routes within and through Danville's River District. Routes are distinguished according to the type of accommodations or pavement markings that are expected to accompany the designation. These accommodation types are explained in greater detail in the boxes to the right.

The map also provides a draft plan for the placement of street signs that will help identify the bicycle routes and direct users to their destinations. Sign markers are distinguished according to the type of sign that is expected to be used at that location. These sign types are explained in greater detail at the bottom of the page.



Bike Lanes

Bicycle route corridors marked with solid red lines will feature bicycle lane accommodations.



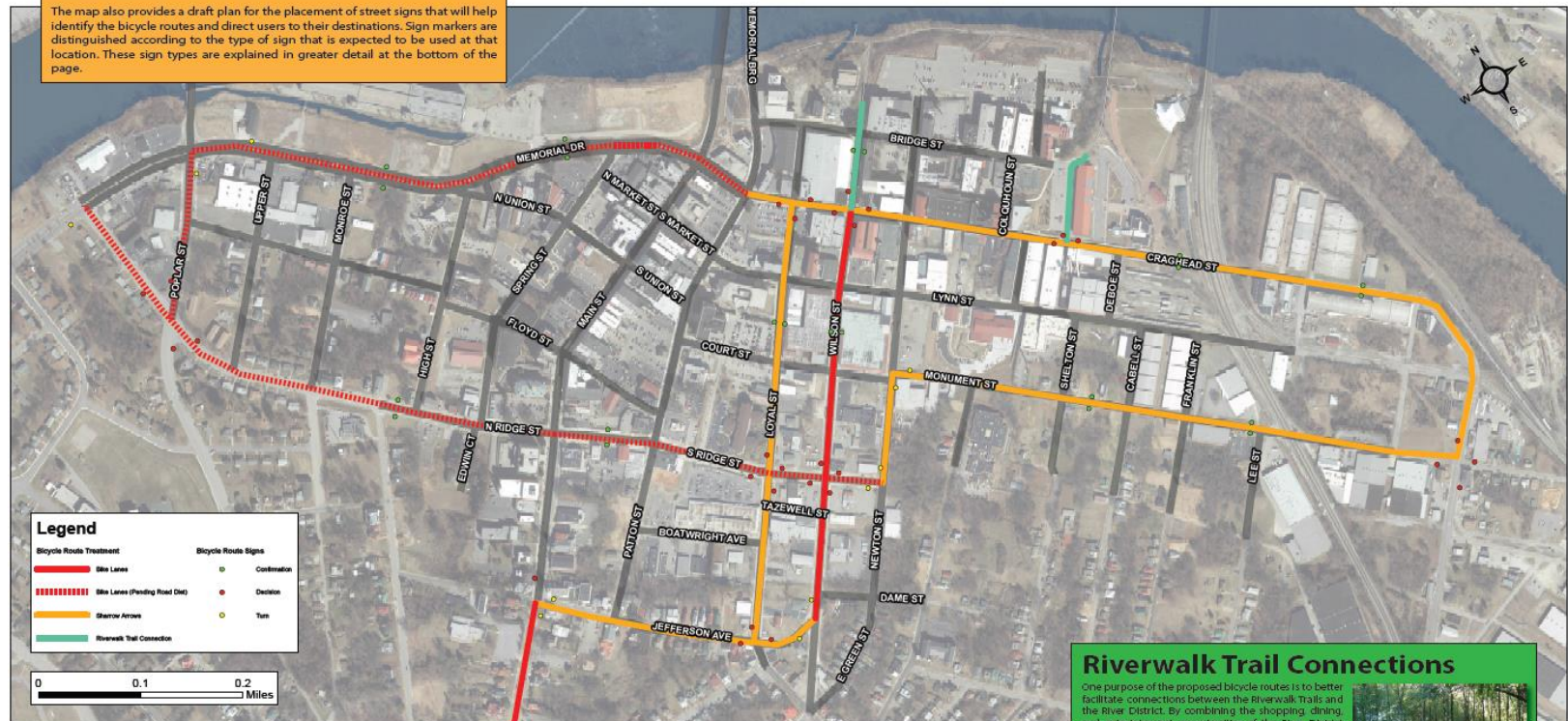
Bike Lanes

(Pending Road Diet)
Bicycle route corridors marked with dashed red lines may potentially feature bicycle lane accommodations following a recommended "road diet" effort that would replace unnecessary travel lanes with bicycle lanes and center turn lanes.



Sharrows

Bicycle route corridors marked with solid yellow lines will feature shared-lane markings, also known as "sharrows." These streets are too narrow to include a full bike lane.



Confirmation Sign

Indicates to bicyclists that they are on a designated bicycle route. Make motorists aware of the bicycle route.



Decision Sign

Marks the junction of two or more bicycle routes. Informs bicyclists of the designated bicycle route to access key destinations.



Turn Sign

Indicates where a bicycle route turns from one street onto another street. Can be used with pavement markings.

Riverwalk Trail Connections

One purpose of the proposed bicycle routes is to better facilitate connections between the Riverwalk Trails and the River District. By combining the shopping, dining, and entertainment opportunities of the River District with the scenic and recreational opportunities provided by the Riverwalk Trails, downtown Danville can further establish itself as a sought-after destination for residents and tourists alike.

In order to emphasize this connection, the City of Danville should consider using special signs or symbols as part of its bicycle wayfinding information to clearly guide users to trailhead connections.



Proposed Road Diets in the Danville River District

Part One: Poplar Street to High Street

In 2015, the annual average daily traffic (AADT) volume of Memorial Dr in the segment from Poplar St to High St was 10,000 vehicles. Given a 2% annual growth rate, the 2040 AADT of this segment is projected to be 16,400 vehicles. These traffic volumes would still be within the effective capacity of a reduced lane street configuration.

The existing lane configuration includes three travel lanes in the east-bound direction, two travel lanes in the west-bound direction, and a center median/turn lane. The proposed road diet configuration would include two travel lanes in the east-bound direction, one travel lane in the west-bound direction, a center median/turn lane, and buffered bicycle lanes in each direction.

Typical Street Section: Memorial Dr- Part 1(Existing)



Typical Street Section: Memorial Dr- Part 1 (Recommended)



Part Two: High Street to Spring Street

In 2015, the annual average daily traffic (AADT) volume of Memorial Dr in the segment from High St to Spring St was 7,200 vehicles. Given a 2% annual growth rate, the 2040 AADT of this segment is projected to be 11,800 vehicles. These traffic volumes can easily be accommodated with a reduced lane street configuration.

The existing lane configuration includes two travel lanes in each direction and a center median/turn lane. The proposed road diet configuration would include one travel lane in each direction, a center median/turn lane, and buffered bicycle lanes in each direction.

Typical Street Section: Memorial Dr- Part 2 (Existing)



Typical Street Section: Memorial Dr- Part 2 (Recommended)



Bike Rack and Commuter Station Recommendations

Existing and Recommended Bicycle Rack Locations



Proposed Crosswalks

Patton Street Crosswalks

Three important public institutions are located on east side of Patton Street, one block adjacent to Main St: The Danville City Circuit Court, the City of Danville Municipal Building, and the Danville Public Library. Pedestrians walking to any of these buildings from Main St must cross Patton St in order to reach their destinations, but the visibility of the existing crosswalks is limited. In the case of the public library, a crosswalk is not provided at all.

In order to improve pedestrian access to these buildings, this study will recommend the enhancement of two existing crosswalks, as well as the addition of a new crosswalk for access to the public library. The crosswalks will be recommended to include high-visibility pavement markings and signs, as well as potential "curb extensions" (example provided in the picture, below) to improve pedestrian visibility and shorten street crossing distances.



Existing Crosswalk: Patton St at S Union St



Recommended Crosswalk Enhancement
(with curb extension)

Crosswalk Locations



Curb Extension Rendering



Other Plans and Initiatives

Danville Bike Share Program!

- **Coming Summer 2017**
- **Currently seeking sponsors**
- **Bike Stations located in the Danville River District Area**

NEWS

Bike share program coming to Danville

By Colter Anstaett - Southside Bureau Reporter

Posted: 1:37 PM, January 25, 2017

Updated: 1:37 PM, January 25, 2017



DANVILLE (WSLS 10) - Those in Danville will soon have a new option when it comes to getting outside and enjoying the city.

A bike share program is scheduled to begin in either April or May.

It is the brainchild of Councilman Lee Vogler, who has been working to get the program started for about four years.

Initially, five kiosks with five bikes each will be placed along or near the Riverwalk Trail.

To rent a bike, you'll need to swipe a credit card and later return the bike to any of the five kiosks.

The program will cost \$45,000 a year, will be maintained by the city's parks and rec department and will be funded by the rental fees and donations and sponsors.

Downtown Lynchburg Waterline and Streetscaping Project Phase 1

- **Need:** Downtown Lynchburg's population has grown from 367 in 2010 to nearly 1,200 today. Business activity has grown by 200% in five years. The rapid growth of downtown is putting pressure on the aging 100 year old waterline system and replacing them has become essential
- **Phase 1 Cost:** \$9.3 million
- **Major improvements on seven downtown blocks (Phase 1)**
- **Waterline replacement, curb extensions, mid-block crosswalks with flashing beacons, narrower 10.5' travel lanes to calm traffic speed, wider improved sidewalks, ADA curb ramps, better lighting, curb side plantings**
- **Phase 1 completion:** September, 2017
- **Two more phases will impact all downtown blocks**



Other Plans and Initiatives Continued

- Town of Altavista road diet project: 2016 Main street road diet went from 4-lane typical section to 3-lane (two travel lanes and two-way left turn lane) with 2' shoulders on both sides (no shoulders before the road diet)
- TJPDC will begin an update to their Long Range Bike and Pedestrian Plan May, 2017 and will include a prioritization process
- Route 29 STARS Study (2016) in Campbell County included sidewalk and shared use path elements
(http://www.virginiadot.org/projects/lynchburg/route_29_corridor.asp)
- Implementing sidewalk recommendations from the Liberty University Bike/Ped Plan in coordination with several projects around campus including new sidewalk facilities on Liberty Mountain Drive

Questions?

Thank You